EXHIBIT A

TO:

RESPONSE OF DEFENDANTS NEW YORK UNIVERSITY SCHOOL OF MEDICINE AND NEW YORK UNIVERSITY HOSPITALS CENTER TO THE STATEMENT OF UNDISPUTED MATERIAL FACTS OF DEFENDANTS GENESIS GENETICS INSTITUTE, LLC AND MARK HUGHES PURSUANT TO LOCAL CIVIL RULE 56.1

Grossbaum v. Genesis Genetics 2981.101

Mark Hughes, M.D. February 19, 2009

Genes	is Geneucs	ì	redruary 19, 2009
	Page 1		Page 3
[1]	UNITED STATES DISTRICT COURT	[1]	INDEX
[2]	DISTRICT OF NEW JERSEY	[2]	WITNESS DIRECT CROSS REDIRECT
[3]	CASE NO. 07-CV-1359 (HAA)	[3]	MARK R. HUGHES, M.D., PhD
[4]	MENACHEM GROSSBAUM, her spouse, individually and as DEPOSITION UPON ORAL	[4]	By Mr. Stein 4 63 By Mr. Hamad 61
[5]	guardians ad litem of the EXAMINATION OF: infant ROSIE GROSSBAUM, MARK R. HUGHES, M.D.	[5]	
[6]	Plaintiffs,	[6]	
[7]	VB.	[7]	
[8]	GENESIS GENETICS INSTITUTE, LLC, of the State of Michigan,	[8]	
[9]	MARK R. HUGHES, NEW YÖRK UNIVERSITY SCHOOL OF MEDICINE	[9]	
[10]	and NEW YORK UNIVERSITY HOSPITAL CENTER, both corporations in the	[10]	
[11]	State of New York, ABC CORPS, 1-10, and JOHN DOES 1-10	[11]	
[12]	Defendants.	[12]	
[13]	x	[13]	
[14]		[14]	
[15]	TRANSCRIPT of the deposition of the witness,	[15]	
[16]	called for Oral Examination in the above-captioned matter, said deposition being taken pursuant to Notice,	[16]	
[17]	taken by and before KATHLEEN HAGEN, a Notary Public and Certified Shorthand Reporter of the State of New	[17]	
[18]	Jersey, at the law offices of NUSBAUM, STEIN, GOLDSTEIN, BRONSTEIN & KRON, P.A., 20 Commerce	[18]	
[19]	taken by and before KATHLESN MAGEN, a Notary Public and Certified Shorthand Reporter of the State of New Jersey, at the law offices of NUSBAUM, STEIN, GOLDSTEIN, BRONSTEIN & KRON, P.A., 20 Commerce Boulevard, Succasunna, New Jersey, on Thursday, February 19, 2009, commencing at 10:30 a.m.	[19]	
[20]		[20]	
[21]	PHILIP A. FISHMAN COURT REPORTING AGENCY	[21]	
[22]	89 Headquarters Plaza 4 Speedwell Avenue, Suite 440	[22]	
[23]	Morristown, New Jersey 07960 (973) 285-5331	[23]	
[24]	Fax (732) 605-9391	[24]	
[25]		[25]	
	Page 2	Direct	- Mark R. Hughes, M.D., Ph.D. Page 4
[1]	APPEARANCES:		· ·
[2]	NUSBAUM, STEIN, GOLDSTEIN, BRONSTEIN & KRON, P.A.	[1]	M-A-R-K R. H-U-G-H-E-S, M.D., Ph.D., having offices
[3]	By: Lewis Stein, Esq. and Lynn Harris, Paralegal 20 Commerce Boulevard	[2]	at Genesis Genetics Institute, LLC, 5555 Conner Avenue,
[4]	Succasumna, New Jersey 07676 (973) 584-1400	[3]	A22064, Detroit, Michigan, 48213, called as a witness,
[5]	Appearing on behalf of Plaintiffs	[4]	having been duly sworn, was examined and testified as follows:
[6]	STEPHEN N. LEUCHTMAN, P.C. 23855 Northwestern Highway	[5]	DIRECT EXAMINATION BY MR. STEIN:
[7]	Southfield, Michigan 48075 (248) 948-9696, Ext. 143	[6]	
[8]	Appearing on behalf of Defendant, Mark R. Hughes, M.D.	[7]	Q Dr. Hughes, as you know, we're here to
[9]	MARSHALL, DENNEHEY, WARNER, COLEMAN & GOGGIN, ESQS. By: Jay A. Hamad, Esq.	[8]	take your deposition. I take it that you have previously submitted to a deposition?
[10]	425 Eagle Rock Ave., Suite 302 Roseland, New Jersey 07068	[9]	A Yes.
[11]	(973) 618-4158 jahamad@mdwcg.com	[11]	Q About how many occasions?
[12]	Appearing on behalf of Defendant, NYU	[12]	A Twice.
[13]		[13]	Q Well, before I ask you about those,
[14]		[14]	permit me to give you some guidelines and instructions,
[15]		[15]	which we should operate under during this question and
[16]		[16]	answer session. First, I should tell you that my
[17]		[17]	questions and your answers are being recorded by the
[18]		[18]	lady who sits to my right and your left, who is a
[19]		[19]	Certified Shorthand Reporter, and if this case goes to
[20]		[20]	trial, what you say here may be used at trial, so you
[21]		[21]	should treat this question and answer session with the
[22]		[22]	same onus as if you were giving testimony in open
[23]		[23]	court, even though we're here in the law office. Do
[24]		[24]	you understand that?
[25]		[25]	A Um-hum, I do.
L		l	

Page 13 Direct - Mark R. Hughes, M.D., Ph.D.

Mark Hughes, M.D. February 19, 2009

Direct - Mark R. Hughes, M.D., Ph.D.

Grossbaum v. Genesis Genetics

Page 15

Direct	- Walk It. Hughes, W.D., Fh.D.	D., CC.	- Mark 14. Hoghoo, Miles I i mos.
[1]	there any other people who hold the position of	[1]	my notes, but not otherwise.
[2]	director, board of directors?	[2]	Q All right. So is your memory of this
[3]	A It's an LLC, and there are two of us.	[3]	particular case, and when I refer to "case", I'm not
	Q And who is the other person?	[4]	referring to the legal case, but I'm referring to their
[4]	A Stanley Dickson.	[5]	request for consultation with you, strictly what
[5]	Q D-i-x-o-n?	1	appears to be in the records that were created at the
[6]		[6]	• •
[7]	A No, c-k.	[7]	time that you performed the PGD services? A Yes.
[8]	Q Is Mr. Dickson an active participant in	[8]	
[9]	the operation of Genesis Genetics?	[9]	Q Could you tell us when, if you recall, you
[10]	A Yes.	[10]	first became aware that this couple gave birth to a
[11]	Q And what position does he hold, in terms	[11]	baby that suffers this cystic fibrosis mutation?
[12]	of his active involvement, other than being a director?	[12]	A I found out from the genetic counselor, after
[13]	A Assistant in business management.	[13]	the baby was born, we were informed that they had a
[14]	Q All right. Is Sharon Wilsey, Matt Studt,	[14]	healthy child, in fact, we were informed first that
[15]	S-t-u-d-t, and Susan Brown still employed at Genesis	[15]	they had twins, but I don't remember the exact date.
[16]	Genetics?	[16]	No, it might be in the records, but I don't remember.
[17]	A Yes.	[17]	Q Would it have been sometime in the close
[18]	Q Does Genesis Genetics advertise its	[18]	proximity to when the baby was born, is it closer to
[19]	services in any print media?	[19]	that date than now or the institution of the lawsuit?
[20]	A No.	[20]	A No, I found out about it some months after the
[21]	Q In any television or other media?	[21]	baby was born, but I don't remember when that was.
[22]	A We have an internet web site.	[22]	Q All right. And do you, at this moment,
[23]	Q Your laboratory is subject to	[23]	recall the method by which you found out?
[24]	accreditation by a reviewing agency?	[24]	A No, I think the genetic counselor told me.
[25]	A Yes.	[25]	Q And that genetic counselor would have been
Direct	- Mark R. Hughes, M.D., Ph.D. Page 14	Direct	- Mark R. Hughes, M.D., Ph.D. Page 16
[1]	Q And which reviewing agency?	[1]	at NYU or someplace else?
[2]	A CLIA.	[2]	A Frankly, I don't remember.
[3]	Q And has it ever been refused	[3]	Q You received a reference in this case from
[4]	accreditation?	[4]	the NYU Medical Center, is that correct?
[5]	A Not only that, they've never found a violation	[5]	MR. HAMAD: Objection to form.
[6]	that needed mediation.	[6]	Q You referred these people, the
[7]	Q And on how many occasions has that review	[7]	Grossbaums, were referred to you for PGD study by the
[8]	taken place?	[8]	New York University Medical Department?
[9]	A Three.	[9]	A No, we don't call it that, because I'm not
[10]	Q Do you have a personal recollection of any	[10]	practicing medicine. They asked our laboratory, they
[11]	of the communications with the plaintiffs in this case?	[11]	ordered a laboratory test for us to perform for their
[12]	MR. HAMAD: Objection to form.	[12]	patient, yes.
[13]	MR. STEIN: Can you tell me your grounds	[13]	Q Okay. Can you tell me how you define, in
[14]		1	your last answer, the words "practicing medicine"?
[15]	for objection as to form?	1 141	
[16]	for objection as to form? MR. HAMAD: I will. I think the guestion	[14]	
1503	MR. HAMAD: I will. I think the question	[15]	A Well, you have a license, you have to have
[17]	MR. HAMAD: I will. I think the question is vague, in the sense that's it's asking a	[15] [16]	A Well, you have a license, you have to have hospital privileges, you have to see patients, and I
[17]	MR. HAMAD: I will. I think the question is vague, in the sense that's it's asking a communication, but there's that could	[15] [16] [17]	A Well, you have a license, you have to have hospital privileges, you have to see patients, and I don't do any of those things.
[18]	MR. HAMAD: I will. I think the question is vague, in the sense that's it's asking a communication, but there's that could encompass any documents that the people signed,	[15] [16] [17] [18]	A Well, you have a license, you have to have hospital privileges, you have to see patients, and I
[18]	MR. HAMAD: I will. I think the question is vague, in the sense that's it's asking a communication, but there's that could encompass any documents that the people signed, any correspondence or any telephone	[15] [16] [17] [18] [19]	A Well, you have a license, you have to have hospital privileges, you have to see patients, and I don't do any of those things. Q Are you licensed as a physician in any state?
[18] [19] [20]	MR. HAMAD: I will. I think the question is vague, in the sense that's it's asking a communication, but there's that could encompass any documents that the people signed, any correspondence or any telephone conversations, face-to-face discussions.	[15] [16] [17] [18] [19] [20]	A Well, you have a license, you have to have hospital privileges, you have to see patients, and I don't do any of those things. Q Are you licensed as a physician in any state? A No.
[18] [19] [20] [21]	MR. HAMAD: I will. I think the question is vague, in the sense that's it's asking a communication, but there's that could encompass any documents that the people signed, any correspondence or any telephone conversations, face-to-face discussions. I don't know if that's my objection. I hope	[15] [16] [17] [18] [19] [20] [21]	A Well, you have a license, you have to have hospital privileges, you have to see patients, and I don't do any of those things. Q Are you licensed as a physician in any state? A No. Q Have you sought licensure in any state?
[18] [19] [20] [21] [22]	MR. HAMAD: I will. I think the question is vague, in the sense that's it's asking a communication, but there's that could encompass any documents that the people signed, any correspondence or any telephone conversations, face-to-face discussions. I don't know if that's my objection. I hope you will be more specific.	[15] [16] [17] [18] [19] [20] [21] [22]	A Well, you have a license, you have to have hospital privileges, you have to see patients, and I don't do any of those things. Q Are you licensed as a physician in any state? A No. Q Have you sought licensure in any state? A Well, I had in Texas, because I did my training
[18] [19] [20] [21] [22] [23]	MR. HAMAD: I will. I think the question is vague, in the sense that's it's asking a communication, but there's that could encompass any documents that the people signed, any correspondence or any telephone conversations, face-to-face discussions. I don't know if that's my objection. I hope you will be more specific. Q Did you understand my question?	[15] [16] [17] [18] [19] [20] [21] [22] [23]	A Well, you have a license, you have to have hospital privileges, you have to see patients, and I don't do any of those things. Q Are you licensed as a physician in any state? A No. Q Have you sought licensure in any state? A Well, I had in Texas, because I did my training there; when you're in training, you have to have a
[18] [19] [20] [21] [22] [23] [24]	MR. HAMAD: I will. I think the question is vague, in the sense that's it's asking a communication, but there's that could encompass any documents that the people signed, any correspondence or any telephone conversations, face-to-face discussions. I don't know if that's my objection. I hope you will be more specific. Q Did you understand my question? A I understood it, but I don't know how to answer	[15] [16] [17] [18] [19] [20] [21] [22] [23] [24]	A Well, you have a license, you have to have hospital privileges, you have to see patients, and I don't do any of those things. Q Are you licensed as a physician in any state? A No. Q Have you sought licensure in any state? A Well, I had in Texas, because I did my training there; when you're in training, you have to have a license.
[18] [19] [20] [21] [22] [23]	MR. HAMAD: I will. I think the question is vague, in the sense that's it's asking a communication, but there's that could encompass any documents that the people signed, any correspondence or any telephone conversations, face-to-face discussions. I don't know if that's my objection. I hope you will be more specific. Q Did you understand my question?	[15] [16] [17] [18] [19] [20] [21] [22] [23]	A Well, you have a license, you have to have hospital privileges, you have to see patients, and I don't do any of those things. Q Are you licensed as a physician in any state? A No. Q Have you sought licensure in any state? A Well, I had in Texas, because I did my training there; when you're in training, you have to have a

Grossbaum v. Genesis Genetics

Mark Hughes, M.D. February 19, 2009

Direct - Mark R. Hughes, M.D., Ph.D.

[1] Texas at this time, is that right?

[2] A It's in some limbo state of some type, I don't

know what it's actually called. I have to continue to

[4] do CME credits, which I wasn't doing, so they put me in

[5] some inactive state of some type.

[6] Q And you have not sought licensure in any

[7] other state, is that correct?

[8] A That's correct.

[9] Q Well, has your laboratory been referred

[10] for analysis of genetic materials from NYU, prior to

[11] the time of the Grossbaum family?

[12] A Many times.

[13] Q Can you give me some indication of the

[14] number, approximately?

[15] A Certainly 50.

[16] Q Over what period of time?

[17] A I don't remember when it started, but through

[18] now.

[19] Q Okay. And when you estimate 50, are you

estimating it 50, including right up to the present

[21] time?

[22] A Yes.

[23] Q Other than the Grossbaums, are you aware

[24] of any other laboratory studies that you did, that

resulted in a CF baby being born to a couple?

Page 17 Direct - Mark R. Hughes, M.D., Ph.D.

Page 19

[1] your attention as being born with cystic fibrosis, that

121 you did PGD testing on?

[3] A Four, I believe.

[4] Q And these four are the four you mentioned?

[5] A Yes

[6] Q And how many babies would you say you

tested for cystic fibrosis mutations, in doing PGD

testing, in total, over the time that you've been doing

[9] this work?

[10] A I do not know, but over 1000.

[11] Q Is there a particular ethnic group of

people who have a higher incidence of cystic fibrosis

[13] mutations than others?

[14] A Caucasions.

(15) Q Now, it's reported that the testing for

the screening testing for the CSF gene is 97 percent

effective within Ashkanazi Jews, is that correct?

[18] A Well, it's variable, depending on who's doing

the testing and how many different mutations they're

testing for, unless you actually sequence the gene

entirely, you can't have a perfect test, and even then,

you don't have a perfect test, but you reduce that

1231 percentage closer and closer to zero risk of having a

mutation, the more mutations you test for. So some

laboratories test for 20, some test for 40, some test

Direct - Mark R. Hughes, M.D., Ph.D.

Page 18 Direct - Mark R. Hughes, M.D., Ph.D.

Page 20

[1] A Yes.

[2] Q On how many occasions?

[3] A Four.

[4] Q Can you tell me when the most recent

[5] occasion was?

161 A No. I don't remember the date.

[7] Q Have any of those four occasions occurred

[8] since the Grossbaum baby was born?

[9] A Yes.

[10] Q Can you tell me how many of those four

[11] occurred since the Grossbaum baby was born?

[12] A One, I think, I'm pretty sure.

[13] Q Okay. And the Grossbaum baby is one, and

(14) are you suggesting that there were two others, prior to

the Grossbaum baby being born?

16] A I believe so, yes.

[17] Q Okay. Now, other than these four, I take

[18] it that -- withdraw the question.

l take it that the work of doing PGD testing has taken place, in your experience, since the date that

[21] you opened Genesis Genetics, when you left Georgetown,

[22] is that right?

[23] A Oh, it's been going on since I invented the

[24] technology, 19 years ago.

251 Q Okay. And how many babies have come to

[1] for 90, it depends on where the sample is sent.

[2] Q Okay.

[3] A Now, that's the risk of finding a mutation in

(4) the gene. So I'll give you a little biology lesson.

If you screen the woman, and you don't find a mutation

with a test that has a 95 percent accuracy, and you

screened the man, and you don't find a mutation that

has that, has a 95 percent accuracy, then the chances

that both of them have a mutation in the 5 percent

[10] become quite small, so their background risk goes from

[11] 1 in 25 that the general population of Caucasians have

[12] a cystic fibrosis mutation substantially less, so their

risk of having a child with CF goes from 1 in 2500 to

[14] significantly less, but not zero.

[15] Q Okay. In connection with your work doing

[16] PGD testing, is the religious background of the subject

[17] parents ever taken into consideration?

[18] A No, not at all.

[19] Q And you don't solicit that information, is

[20] that correct?

[21] A No, it's -- no, not at all. In fact, I

sometimes worry it would be illegal to start asking

personal questions like that for a laboratory, so we

don't. The only time I find out if a patient, for

example, is Jewish is that there's a large charity in

EXHIBIT B

TO:

RESPONSE OF DEFENDANTS NEW YORK UNIVERSITY SCHOOL OF MEDICINE AND NEW YORK UNIVERSITY HOSPITALS CENTER TO THE STATEMENT OF UNDISPUTED MATERIAL FACTS OF DEFENDANTS GENESIS GENETICS INSTITUTE, LLC AND MARK HUGHES PURSUANT TO LOCAL CIVIL RULE 56.1

T	IN THE UNITED STATES DISTRICT COURT			
2	IN THE DISTRICT OF NEW JERSEY			
3	/			
4	CHAYA GROSSBAUM and MENCHEN			
5	GROSSBAUM, Her Spouse, Individually, and			
6	as Guardian ad litem of the Infant, ROSIE			
7	GROSSBAUM,			
8	Plaintiffs,			
9	-vs- Index No. 07-CV-359			
10	GENESIS GENETICS INSTITUTE, LLC,			
11	OF THE STATE OF MICHIGAN, MARK R.			
12	HUGHES, M.D., NEW YORK UNIVERSITY			
13	SCHOOL OF MEDICINE, and NEW YORK			
14	UNIVERSITY HOSPITALS CENTER, both			
15	Corporations of the State of New York,			
16	ABC CORPORATIONS: 1-10 and John Doe,			
17	Defendants.			
18	/			
19				
20	PAGE 1 - 82			
21				
22	The Deposition of DR. MARK HUGHES,			
23	Taken at 1380 Trowbridge Place,			
24	Detroit, Michigan,			
25	Commencing at 12:55 p.m.,			

```
Friday, May 14, 2010
         Before Laura J. Steenbergh, CSR-3707, RPR, CRR, RMR
  3
  4
      APPEARANCES:
  5
  6
      NUSBAUM, STEIN, GOLDSTEIN
     BRONSTEIN & KRON, P.A.
 8
         Attorneys for Plaintiffs
 9
         20 Commerce Blvd.
10
         Succasunna, NJ 070876
11
         BY: LEWIS STEIN, ESQ.
12
         BY: LYNN HARRISON, PARALEGAL
13
14
     TROWBRIDGE LAW FIRM
15
         Attorneys for Defendants
16
         Genesis Genetics Institute, LLC
17
         And Mark R. Hughes, M.D.
18
         1380 East Jefferson Avenue
19
         Detroit, Michigan 48207
20
         BY: STEPHEN LEUCHTMAN, ESQ.
21
         BY: ALI ZAIDI, ESQ.
22
23
24
25
```

- obvious what was going on, and so --
- Q. Did you continue to work with embryos after it became
- 3 government policy not to allow that type of research at
- 4 the NIH?
- 5 A. I don't know anything about the policies of when it was
- or when it wasn't. What I know is that when the decision
- 7 was made that we shouldn't do this at the NIH, or have a
- 8 faculty member -- or, not a faculty member -- a staff
- 9 member of the NIH doing it even across the street at the
- Samaritan Hospital because of the political issues
- involved, I was asked to resign.
- 12 Q. Were you using NIH offices to conduct the research that
- 13 you were doing contrary to government policy?
- 14 A. No. I was using the offices at Georgetown.
- 15 Q. Okay. Now, turning to your deposition, Exhibit P1, which
- is your report, three-page report, in the paragraph
- 17 before the bottom of the first page that begins, I spoke
- 18 with the Grossbaums and conducted the interview that you
- 19 have described in your report, I take it that that
- 20 conversation lasted for some time?
- 21 A. They usually last a good hour, sometimes longer.
- 22 Q. Okay. Now, that is, obviously, direct contact between
- 23 you and what would become your patient when they sent the
- 24 laboratory materials from NYU, is that correct?
- 25 A. Not exactly.

- with the patient constitutes practicing medicine?
- 2 A. I don't have a license in Michigan to practice medicine.
- 3 I don't practice medicine. I happen to have an MD, but
- 4 what I do is science, it's my PhD. I don't practice
- 5 medicine.
- 6 Q. And you don't consider the providing informed consent to
- 7 the patient who's going to be a prospective submitter of
- 8 materials for laboratory analysis to be practicing
- 9 medicine, is that right?
- 10 A. Not even remotely. It's more like a genetic counselor.
- That's why we don't talk to the patient during or after
- 12 the case.
- 13 Q. Okay. Now, when you said -- and you have a copy of your
- 14 letter in front of you?
- 15 A. Yeah.
- 16 Q. And you say in that paragraph that -- you explained, to
- 17 quote you, I explained the technology involved isn't
- 18 perfect and pushes medical diagnostic technology to its
- 19 absolute limit.
- 20 Can you tell me what you mean by that?
- 21 A. Yes. Unlike testing that's done in almost any other
- 22 field of medicine, we're studying the smallest unit of
- 23 life, one cell. And we're studying it for the smallest
- unit of inheritance, one gene. And we're studying it for
- 25 the smallest possible part of a gene, changes of a single